**Homework 03, Displaying Query Results**

**All of the datasets are in the /courses/d649d56dba27fe300/STA5067/SAS Data/orion**

**sub directory.**

1. **Enhancing Output with Titles and Formats**

Use the table orion.employee\_payroll to produce a report:

* 1. Select only the **Employee\_ID**, **Salary**, and a new column **Tax** that is one third of the salary.
  2. Select only rows for which Gender=”M” and marital\_status=”S” and employee\_term\_date is not missing.
  3. Display the **Tax** and **Salary** columns using the COMMA10.2 format.
  4. Order the report by **Salary** in descending order.
  5. Add this title to the report: **Single Male Employee Salaries**.

1. **Using Formats to Limit the Width of Columns in the Output**

Write a query that retrieves the **Supplier\_Name**, **Product\_Group**, and **Product\_Name** columns from the table **orion.Product\_dim**.

* 1. Add this title to the report: **Australian Clothing Products**.
  2. Include only rows where **Product\_Category = "Clothes"** and **Supplier\_Country = "AU"** (Australia).
  3. Assign an appropriate label to the columns **Supplier**, **Group**, and **Product**, respectively.
  4. Order the report by **Product\_Name**.

1. **Enhancing Output with Multiple Techniques**

Create a report that displays **Customer\_ID**, the customer’s name written as **Customer\_LastName**, **Customer\_FirstName**, and **Gender**, as well as the customer’s age as of 31DEC2007. Use the data contained in the **orion.Customer** table. Include only U.S. customers who were more than 50 years old on 31DEC2007. Present the data ordered by descending age, last name, and first name. Give the report an appropriate title. The **Customer\_ID** values must be displayed with leading zeros.

1. **Summarizing Data**

Create a report that displays the number of employees residing in each city.

* 1. Use the **City** column and the COUNT(\*) function.
  2. Use the **orion**.**Employee\_Addresses** table.
  3. Group the data and order the output by **City**.
  4. Add this title to the report: **Cities Where Employees Live**.

1. **Using SAS Functions**

Create a report that includes each employee’s age at time of employment.

* 1. The report should contain the columns **Employee\_ID**, **Birth\_Date**, **Employee\_Hire\_Date**, and **Age**.
  2. Obtain the data for the report from the **orion.Employee\_Payroll** table.
  3. Calculate **Age** as INT((**Employee\_Hire\_Date** − **Birth\_Date**)/365.25).
  4. Add this title to the report: **Age at Employment**.
  5. Display **Birth\_Date** and **Employee\_Hire\_Date** values using the MMDDYY10. format.
  6. Label each column appropriately:

For the purpose of this report, an employee’s age when hired can be computed by taking the integer portion of (**Employee\_Hire\_Date** − **Birth\_Date**)/365.25.

1. **Summarizing Data**
   1. Using data contained in the **orion.Customer** table, create a report that shows the following statistics for each country:
      1. total number of customers
      2. total number of male customers
      3. total number of female customers
      4. percent of all customers that are male (**Percent Male**)
   2. Add this title to the report: **Customer Demographics: Gender by Country**.
   3. Arrange the report by value of **Percent Male** so that the country with the lowest value is listed first, with the remaining countries following in ascending order.

The Boolean expression (**Customer\_Gender="M"**) evaluates as 1 when true and   
0 when false.

1. **Summarizing Data in Groups**

Use the **orion.Customer** table to determine the number of Orion Star customers of each gender in each country. Display columns titled **Country**, **Male Customers**, and **Female Customers**. Display only those countries that have more female customers than male customers. Order the report by descending female customers. Add this title to the report: **Countries with more Female than Male Customers**.